BAILLAIRGE'S STEREOME

(Patented in Canada, in the United States o

This is a Case 5 feet long, 3 feet wide and 5 inches deep, with a hinged C exhibiting, and affording free access to some 200 well-finished Hardwood M form, each of which being neatly attached to the board, by means of a wire-p Student or Professor.

The use of the Tableau and accompanying Treatise, reduces the whole science and art of Mensuration from the study of a year to that of a day or two, and so simplifies the study and teaching of Solid Geometry, the Nomenclature of Geometrical and other forms, the development of surfaces, geometrical projection and perspective, plane and curved areas and Spherical Geometry, and Trigonometry, and mensuration of surfaces and solids, that the several branches hereinbefore mentioned may now be taught even in the most elementary schools, and in convents, where such study could not even have been dreamed of heretofore.

Each Tableau is accompanied by a Treatise explanatory of the mode of measurement by the " Prismoidal Formula, " and an explanation of the solid, its nature, shape, opposite bases, and middle section.

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Agents wanted for the sale of the Tableau in Canada, the United States, &c.

TABLEAU STEREOMETRIQUE BAILLAIRG

Pour trouver le volume d'un corps quelconque

REGLE : —A la somme des surfaces des extrémités parallèles, ajouter quatre fois la surface au centre, et multiplier le tout par la sixième partie de la hauteur ou longueur du solide.
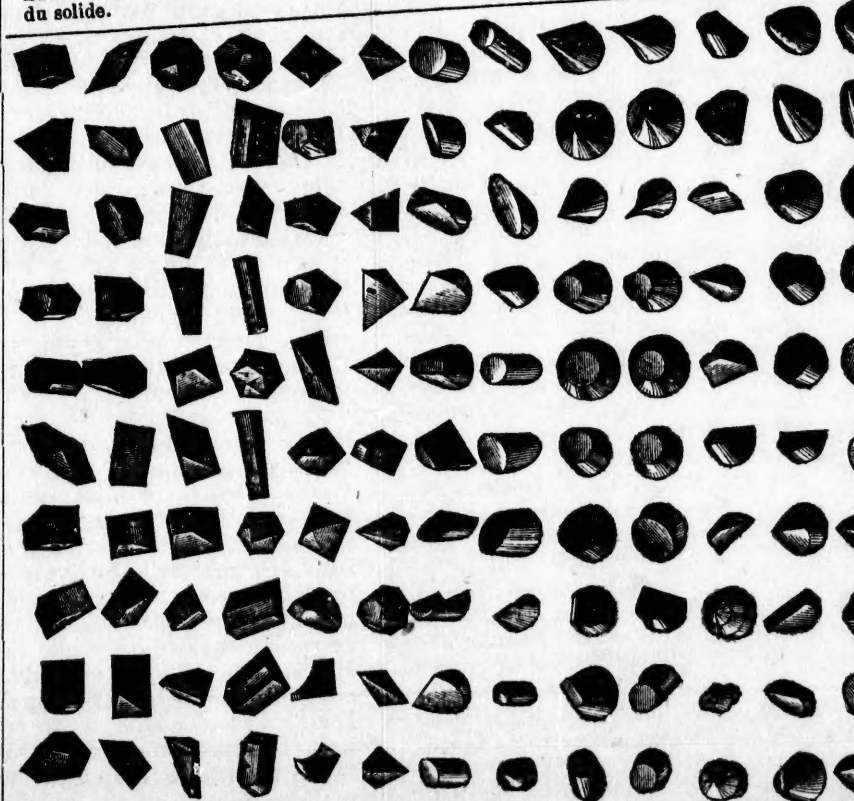
Breveté au CANADA, aux ETATS-UNIS et en EUROPE.

Membre Titulaire de la Société pour la Vulgarisation de l'Education en France.

Patented i

Honorar

For the use of Architects, Engineers, Surveyors, Students and Apprentice Mathematics, Universities, Colleges, Seminaries, Convents and other Educati Measurers, Gaugers, Ship-builders, Contractors, Artizans and others in Canad

EOMETRICAL TABLEAU!

HE GENERALIZATION OF EDUCATION IN FRANCE, ETC., ETC.

United States of America, and in Europe.)

with a hinged Glass Cover, under Lock and Key, so as to exclude dust while
Hardwood Models of every conceivable Elementary, Geometrical or other
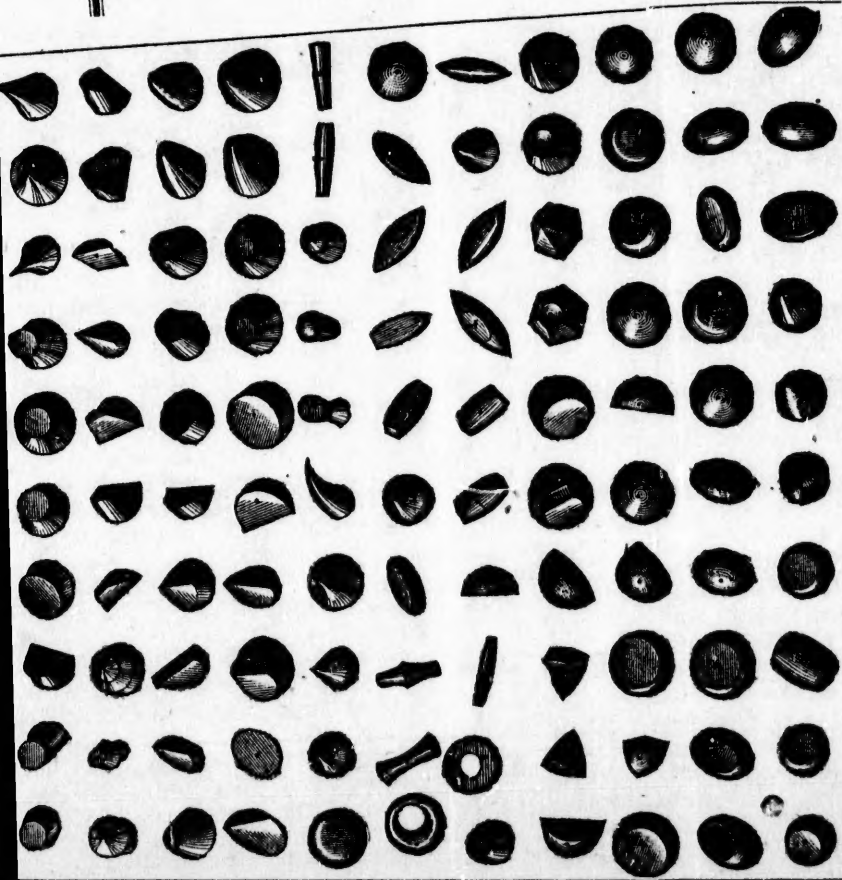eans of a wire-peg or nail, can be removed and replaced at pleasure, by the

AILLAIRGE STEREOMETRICAL TABLEAU

UNIS

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and in EUROPE.

r la

Honorary Member of the Society for the Generalization of Education
in France.

To find the solid content of any body.

RULE :—To the sum of the parallel end areas, add four times the middle area, and multiply the whole by one sixth part of the height or length of the body.

Approved by the Council of Public Instruction of the Province of Quebec, and already adopted and ordered by many Educational and other Establishements in Canada and elsewhere. For information and testimonials apply to

C. BAILLARGÉ,

QUEBEC.

CANADA.

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The Archbishop of Quebec, the Bishop of Rimouski, the Bishop of Kingston, the Bishop of St. Hyacinthe, the Dominion Board of Works, the Schools of Arts and Design, the Laval University, the Seminary, Q., the College at Ottawa, Nicolet, Rimouski, Montmagny, St. Michel, etc., l'Ecole Normale Laval, les Ecoles des Frères, the Commercial Academy, the Board of Land Surveyors, the Department of Education, New Brunswick, the Corporation of Quebec, R. Hamilton, Esq., F. N. Martin, and C. Roy, Civil Engineers, etc., La Société pour la vulgarisation de l'Enseignement du Peuple, France F. Peachy, J. Lepage, etc., Architects, N. Piton, T. Maguire, J. Marcotte, builders, the Council of Public Instruction, Q., the Jacques Cartier Normal School, M. Piton Manitoba, the Colleges of Aylmer, L'Assomption. Ste. Anne de la Pocatiere, St. Hyacinthe, the High School, Q., the Morin College, Q., the Lafrance Academy, Q., Government Boards of Works, Q., the Ursulines Convent, the Convent of the Good Shepherd, Grey Nuns, Sœurs de la Congrégation, Sœurs de Jésus-Marie, Q., and M. S. W. Townsend, Hamilton, &c. &c. &c.

Etc., Etc., Etc.

and Apprentices, Customs and Excise Officers, Professors of Geometry and
other Educational Establishments, Schools of Art and Design, Mechanics,
thers in Canada, and elsewhere.

Mr. Baillargé's lecture, on Wednesday evening last, before the Literary and Historical Society of Quebec, proved once more how very interesting, even in a popular sense, an otherwise dry and abstruse subject, may become, when ably handled.

The lecture showed the relationship of geometry to all the industries of life. He traced its origin from remote antiquity, its gradual developpment up to the present time. He showed how it is the basis of all our public works, and how we are indebted to it for all the constructive arts ; its relationship to mechanics, hydraulics, optics, and all the physical sciences. The fairer portion of mankind, said Mr. B., have the keenest, most appreciative perception of its advantages and beauties, as evidenced in the ever-varying combinations so cunningly devised in their designs for needle tracery, laces and embroidery. He showed its relationship to chemistry in crystallization and polarization ; to botany and zoology in the laws of morphology ; to theology, and so on. In treating of the circle and other conic sections, he drew quite a poetical comparison between the engineer who traces out his curves among the woods and waters of the earth, and the astronomer who sweeps out his mighty circuits amidst the starry forests of the heavens. The parabola was fully illustrated in its application to the throwing of projectiles of war, also as evidenced in jets of water, the speaking trumpet, the mirror and the reflector, which, in light-houses, gathers the rays of light, as it were, into a bundle, and sends them off together on their errand of humanity. In treating of the ellipse, this almost magic curve which is traced out in the heavens by every planet that revolves about the sun, by every satellite about its primary, he alluded to that most beautiful of all ovals—the face of lovely woman. He showed how the re-appearance of a comet may now be predicted even to the very day it heaves in sight, and though it has been absent for a century, and how in former ages, when these phenomena were unpredicted, they burst upon the world in unexpected moments, carrying terror everywhere and giving rise to the utmost anxiety and consternation, as if the end of all things were at hand. In a word, Mr. Baillargé went over the whole field of geometry and mensuration, both plane and sperical ; a difficult feat within the limits of a single lecture ; and kept the audience, so to say, entranced with interest for two whole hours, which the president, Dr. Anderson, remarked were to him as but one ; and no doubt it must have been so to others, since Mr. Wilkie, in seconding the vote of thanks proposed by Capt. Ashe, alluded to the pleasure with which he had listened to the lecture as if, he said, it were like poetry to him, instead of the unpromising matter foreshadowed in the title. Mr. Baillargé next explained in detail his stereometrical tableau, which we hope to see soon introduced into all the schools of this Dominion. He showed how conducive it will be in shortening the time heretofore devoted to the study of solids and even to that of plane and convex superficies, spherical

trigonometry, geometrical projec... wing, the development of surfac... dows, and the like. Mr. Wilkie, ... had been afforded him of pro... corroborated Mr. B.'s statement ... immense saving in time, where... blems which generally required h... can now (if the rule be, as Mr. ... generally applicable, and, as has ... many persons in testimonials ov... tures,) with the help of the new f... be performed in as many minutes ... the use the models are in imp... knowledge of their nomenclature ... acquaintanceship with their varie... He showed how, to the architec... builder and mechanic, the mode... the forms and relative proportion... domes, piers and quays, cisterns ... drons, vats, casks, tubs and other... eathworks of all kinds, comprisin... cuttings and embankments, the s... Roman column, square and wane... the camping tent, the square or s... door or window, nich or loophole ... or arched ceiling of a church on... the cannon ball, or, on a larger sc... sun and planets. Mr. Baillargé, ... received an order for a tableau f... Education of New Brunswick, wit... ducing it into all the schools of ... Mr. Vannier, in writing to Mr. Bai... on the 10th of January last, to ... granting of his letters-patent for ... that Messrs. Humbert & Noé, the... tary of the society for the general... in France, have intimated their ... next general meeting, of having s... tion conferred on him for the ben... tion and discovery are likely to ... Mr. Giard, in writing to Mr. Bail... the Hon. Mr. Chauveau, Minister ... say : " Il se fera un devoir d'en ... " tion dans toutes les maisons ... " toutes les écoles. " From the ... University, Mr. Maingui writes ... " plus on approfondit cette for... " corps, plus on est enchanté (t... " de sa simplicité, de sa clarté et ... " généralité. " Rev. Mr. McQua... " delighted to see the old a... " superseded by a formula so s... Newton, of Yale College, United ... " the tableau a must useful arran... " the variety and extent of the ... " formula. " The College l'Asso... " Mr. Baillargé's system as pa... " instruction. " Mr. Wilkie has ... that " the rule is precise and sim... " shorten the processes of calcula...

MR. BAILLAIRGE.

, geometrical projection, perspective dra-
velopment of surfaces, shades and sha-
e like. Mr. Wilkie, so far as opportunity
orded him of proving the calculations,
Mr. B.'s statement in relation to the
ing in time, where many abstruse pro-
generally required hours or days to solve.
e rule be, as Mr. Baillargé asserts, so
licable, and, as has been certified by so
s in testimonials over their own signa-
he help of the new formula and tableau,
in as many minutes; to say nothing of
models are in imparting at a glance a
their nomenclature or names, and an
ship with their varied shapes and figures.
ow, to the architect and engineer, the
mechanic, the models are suggestive of
l relative proportions of buildings, roofs,
and quays, cisterns and reservoirs, caul-
asks, tubs and other vessels of capacity,
all kinds, comprising railroad and other
embankments, the shaft of the Greek and
n, square and waney timber, saw-logs,
tent, the square or splayed opening of a
ow, nich or loophole in a wall, the vault
iling of a church or hall, the billiard or
all, or, on a larger scale, the moon, earth,
nets. Mr. Baillargé, we may add, has
rder for a tableau from the Minister of
New Brunswick, with the view of intro-
all the schools of that Province; and
in writing to Mr. Baillargé, from France,
of January last, to advise him of the
is letters-patent for that country, says
Humbert & Noé, the President and secre-
ciety for the generalization of education
ave intimated their intention, at their
meeting, of having some mark of distinc-
l on him for the benefit which his inven-
overy are likely to confer on education.
writing to Mr. Baillargé, on the part of
Chauveau, Minister of Public Instruction,
fera un devoir d'en recommander l'adop-
outes les maisons d'éducation et dans
coles." From the Seminary and Laval
Mr. Maingui writes: "Plus on étudie,
profondit cette formule du cubage des
on est enchanté (the more one marvels)
cité, de sa clarté et surtout de sa grande
Rev. Mr. McQuarries, B. A. "shall be
o see the old and tedious processes
by a formula so simple and so exact."
le College, United States: "considers
a must useful arrangement for showing
and extent of the applications of the
The College l'Assomption "will adopt
gé's system as part of their course of
Mr. Wilkie has written to the author
e is precise and simple, and will greatly
processes of calculation. The tableau,"

says this competent judge, "comprising as it does a
"great variety of elementary models, will serve
"admirably to educate the eye, and must greatly
"facilitate the study of solid mensuration." "Again,"
says Mr. Wilkie, "the Goverment would confer a
"boon on schools of the middle and higher class by
"affording access to so suggestive a collection."
There are others who, irrespective of considerations
as to the comparative accuracy of the formula, or of
its advantages, as applied to mere mensuration, are
awake to the fact that the models are so much more
suggestive to the pupil and the teacher than their
mere representation on a blackbord or on paper, and
who, in their written opinions, have alluded especially
to this feature of the proposed system. M. Joly Pre-
sident of the Quebec Branch of the Montreal School
of Arts and Design, in a letter on the subject to Mr.
Weaver, the President of the Board, and after having
himself witnessed its advantages on more than one
occasion, says, in his expressive style, "the difference is
enormous." Professor Toussaint, of the Normal School,
Dufresne, of the Montmagny Academy, Boivin, of St.
Hyacinthe, and many others, are of the same opinion;
among them MM. R. S. M. Bouchette, O'Farrell, Flet-
cher, St. Aubin, Steckel, Juneau, Venner, Gallagher,
Lafrance, and the late Brother Anthony, &c., &c.
Neither will it be forgotten that the professors of the
Laval University, after reading the enunciation of Mr.
B.'s formula, as given in his treatise of 1866, expressed
themselves thus : "Un doute involontaire s'empare
"d'abord de l'esprit, lorsqu'on lit le No. 1521 ; mais
"un examen attentif des paragraphes suivants, dissipe
"bientôt ce doute et l'on reste étonné à la vue d'une
"formule, si claire, si aisée à retenir et dont l'appli-
"cation est si générale." Mr. Fletcher, of the Crown
Lands Department, says : "I have compared, in the
"case of several solids, the results obtained by your
"mode of computation with those resulting from the
"ordinary and more lengthy processes, and congra-
"tulate you sincerely on your enunciation of a formula
"so brief and simple in its character, and so precise
"and satisfactory in its results." Mr. Baillairgé also
took occasion during his lecture to allude, in other
relations, to his treatise on geometry and mensuration,
in which he showed he has introduced many important
modifications in the usual mode of treating the subject
of plane and spherical geometry and trigonometry.
In conclusion, we must add that the Council of Public
Instruction, at its last meeting, appointed a Committee,
composed of the Lord Bishop of Quebec, and of Bishops
Langevin and Larocque, to report to the Council at
its next general meeting in June, and who, it may be
taken for granted, after the many flattering testimo-
nials in relation to the utility and many advantages
of the stereometrical tableau for purposes of education,
cannot but recommend and direct its adoption in all
the schools of the Dominion.

We learn with pleasure that Mr. Baillargé has been
invited to repeat this lecture in Montreal.